

before Linnæus struck out his binomial system. In Dr. Sharpe's words "It will end in making the study of birds impossible"; and I do implore him in future volumes to study, not foreign examples, but those of his own colleagues in that great series of which we owe so large a part to his own laborious energy.

XI.—*Further Remarks on the Mode of Carriage of the Legs in the Birds of Prey.* By ERNST HARTERT.

IN 'The Ibis' for 1894 (p. 547) the Editor called attention to my remarks about the carriage of the legs by the Raptores, and asked the Members of the B.O.U. whether I was right or not. I hope they will publish their observations, as there seem to be different opinions. At the same time such questions can certainly not be settled by opinions, but only by accurate observations.

I myself was formerly under the impression that the Raptores carry their feet drawn up in front against the abdomen, because all the figures and all the stuffed birds which I have seen were arranged thus. I was therefore much astonished to find that *Milvus govinda* and *Haliastur indus*, which are so fearless in India that one can observe them quite closely, carried their legs stretched out behind under the root of the tail, and afterwards I saw the same course followed by birds of several other species. I therefrom conclude most positively that all the Raptores do the same, for such habits as this are never peculiar to certain species. Besides, a number of exact observers, both in Germany and Africa, have published in the 'Ornithologische Monatsberichte' their own observations on other species of Raptores (after I had opened the controversy), which agree with my own. It is true that the contrary has been stated by two observers, but they make such sweeping and general statements that I do not doubt that their memory failed them. They evidently wrote from recollection, and did not quote particular observations of the fact.

I do not know what the general impression of British observers is, though in my own country my statements seemed to astonish everyone, and to be contrary to the general opinion. I hope, however, that British ornithologists will agree with me on this subject, and I am glad to be able to give two pieces of testimony already.

My friend Mr. E. C. Stuart Baker, the keen observer of Cachar, writes to me as follows, and kindly allows me to publish his letter:—

“ You are undoubtedly right in what you say regarding the carriage of their legs by the Raptores. I have often noticed *Milvus govinda* and its allies hawking after ‘ white ants.’ Anyone who has the patience to watch them for a short time will notice that each time an insect is seized the foot is brought downward and forward, and then swings back almost straight, when the insect has been delivered into the bill. Again, I have seen *Polioætus plumbeus* strike at fishes, and having frightened it I have noticed its legs swing back. The same also is the case with *Spilornis cheela*. A pair of these birds used to haunt my bungalow and steal the chickens, but so long as they confined their diet to the inexpensive domestic fowl I did not interfere with them, and had many opportunities of watching their movements. Another pair I kept for over two years in semi-captivity. I had them from the time when they were nestlings, and they became so tame that they were seldom confined to their aviary, and these birds *most assuredly* flew always with their legs behind them. Perhaps, however, the easiest way of finding out how birds of this order carry their legs is to watch them in the act of perching, in which the action of bringing the legs down from behind, then forward and up, may most distinctly be seen. I once kept about a dozen specimens of *Tinnunculus amurensis*, and these in the same way made their legs describe an arc before perching; however, when *about to strike* these little Kestrels carried their legs forward and extended. [This latter observation is quite right, but the feet are brought forward by the strong Falcons and Eagles,

which strike upon their prey with great force, *only just when shooting down* upon the victim, never by such birds as *Milvus* and *Haliastur*, which have quite a different mode of capture.—E. H.] *Haliastur indus* carries its legs precisely as does *Milvus govinda*. *Haliaëtus albicilla* carries them behind, for I once noticed a specimen when perching. As regards *Accipiter virgatus*, though I have kept many of them, I can remember nothing about their mode of perching.”

Again, Mr. Ogilvie Grant, of the British Museum, informed me that I was quite right in what I had said about the situation of the feet in birds of prey in tranquil flight, for he had often watched it when hawking, and that Hawks hold their talons in front only when stooping down upon their prey.

I do not know why there should be anything strange in these observations, for by far the majority of birds carry their legs behind. Undoubtedly all Waders, Ducks, Herons, Cranes, Storks, and Rails do this, and, I may add, *all the Game-birds* also! This last fact has often been doubted, and I regret to see that the splendid Capercaillie in the Natural History Museum at South Kensington is mounted holding its feet drawn up in front. It is very curious that many sportsmen, when asked how Game-birds carry their legs, are not able to give a prompt answer or give the wrong one, for it is easily to be seen when shooting, if the neighbouring gun wounds a bird, how the legs drop down from behind. This I have frequently observed during the present season, near Tring, and Mr. Walter Rothschild assures me that he has also noticed the same fact more than once. Mr. Ogilvie Grant also agrees with me, and tells me that he wrote to that effect some years ago in ‘The Field.’ Again, Mr. J. G. Millais has observed the same fact in the Capercaillie, and has asserted its truth in his splendid book on British Tetraonidæ (p. 8) *.

* [On this subject see also letters from Mr. Barrett-Hamilton and Mr. Meade-Waldo, below, pp. 166, 167.—EDD.]